

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for recording digital data streams to a recording medium, the method comprising the steps of:

recording a received digital data stream of data packet units by grouping the data packet units into an object; and

creating and recording a managing information for the object, the managing information including an entry point map ~~information~~ associated with an entry point of the digital data stream and information indicating whether or not the entry point map ~~information~~ associated with the entry point exists.

2. (Original) The method of claim 1, wherein the data packet units include video data packets containing video data.

3. (Cancelled)

4. (Previously Presented) The method of claim 1, wherein the managing information is recorded on the recording medium.

5. (Original) The method of claim 4, wherein the recording medium is a DVD.

6. (Currently Amended) A recording medium for recording digital data streams, the recording medium comprising:

a recording layer;

a digital data stream of data packet units stored on the recording layer, wherein the data packet units are grouped into an object; and

managing information stored on the recording layer for managing the object, the managing information including an entry point map ~~information~~ associated with an entry point of the digital data stream and information indicating whether or not the entry point map ~~information~~ associated with the entry point exists.

7. (Original) The recording medium of claim 6, wherein the data packet units include video data packets containing video data.

8. (Cancelled)

9. (Original) The recording medium of claim 6, wherein the recording medium is a DVD.

10. (Currently Amended) An apparatus for recording digital data streams to a recording medium, the apparatus comprising:

means for recording a received digital data stream of data packet units by grouping the data packet units into an object; and

means for creating and recording a managing information for the object, the managing information including an entry point map information associated with an entry point of the digital data stream and information indicating whether or not the entry point map information associated with the entry point exists.

11. (Original) The apparatus of claim 10, wherein the data packet units include video data packets containing video data.

12. (Cancelled)

13. (Previously Presented) The apparatus of claim 10, wherein the managing information is recorded on the recording medium.

14. (Original) The apparatus of claim 13, wherein the recording medium is a DVD.

15. (Currently Amended) A method for recording digital data streams to a recording medium, the method comprising the steps of:

grouping data of a digital data stream into a plurality of object units;

recording the object units on the recording medium, wherein the object units are organized into an object; and

creating and recording a managing information for the object, the managing information including an entry point map information associated with an entry point of the digital data

stream and information indicating whether or not the entry point map ~~information~~ associated with the entry point exists.

16. (Original) The method of claim 15, wherein the object units contain video data.

17. (Previously Presented) The method of claim 15, wherein the managing information is recorded on the recording medium.

18. (Original) The method of claim 17, wherein the recording medium is a DVD.

19. (Currently Amended) A recording medium for recording digital data streams, the recording medium comprising:

a recording layer;

a plurality of object units representing groups of data of a digital data stream and stored on the recording layer, wherein the object units are organized into an object; and

managing information stored on the recording layer for managing the object, the managing information including an entry point map ~~information~~ associated with an entry point of the digital data stream and information indicating whether or not the entry point map ~~information~~ associated with the entry point exists.

20. (Original) The recording medium of claim 19, wherein the object units contain video data.

21. (Original) The recording medium of claim 19, wherein the recording medium is a DVD.

22. (Currently Amended) An apparatus for recording digital data streams to a recording medium, the apparatus comprising:

means for grouping data of a digital data stream into a plurality of object units

means for recording the object units on the recording medium, wherein the object units are organized into an object; and

means for creating and recording a managing information for managing the object, the managing information including an entry point map ~~information~~ associated with an entry point of the digital data stream and information indicating whether or not the entry point map ~~information~~ associated with the entry point exists.

23. (Original) The apparatus of claim 22, wherein the object units contain video data.

24. (Previously Presented) The apparatus of claim 22, wherein the managing information is recorded on the recording medium.

25. (Original) The apparatus of claim 24, wherein the recording medium is a DVD.

26. (Currently Amended) A method for recording digital data streams to a recording medium, the method comprising the steps of:

grouping data of a digital data stream into a plurality of object units;

recording the object units on the recording medium, wherein the object units are organized into an object;

creating and recording a managing information for managing the object, the managing information including an entry point map ~~information~~ associated with an entry point of the digital data stream and information indicating whether or not the entry point map ~~information~~ associated with the entry point exists; and

creating map information for accessing the data of the digital data stream, wherein the map information includes access time information and object unit information associated with the object units.

27. (Original) The method of claim 26, wherein the object units contain video data.

28. (Previously Presented) The method of claim 26, wherein the managing information and the map information are recorded on the recording medium.

29. (Original) The method of claim 28, wherein the recording medium is a DVD.

30. (Original) The method of claim 26, wherein the object unit information includes object unit size information and object unit presentation time information associated with each of the object units.

31. (Original) The method of claim 30, wherein the object unit size information of an object unit identifies a size of that object unit.

32. (Original) The method of claim 30, wherein the object unit presentation time information of an object unit identifies a playing time of that object unit.

33. (Original) The method of claim 26, wherein the access time information includes a plurality of index numbers each associated with one of the object units.

34. (Original) The method of claim 33, wherein the access time information further includes location information for each of certain object units.

35. (Original) The method of claim 34, wherein the access time information further includes time duration information identifying a time duration between two start presentation time positions associated with the data.

36. (Currently Amended) A recording medium for recording digital data streams, the recording medium comprising:

a recording layer;

a plurality of object units representing groups of data of a digital data stream and stored on the recording layer, wherein the object units are organized into an object;

managing information stored on the recording layer for managing the object, the managing information including an entry point map ~~information~~ associated with an entry point of the digital data stream and information indicating whether or not the entry point map ~~information~~ associated with the entry point exists; and

map information stored on the recording layer, for accessing the data of the digital data stream, wherein the map information includes access time information and object unit information associated with the object units.

37. (Original) The recording medium of claim 36, wherein the object units contain video data.

38. (Original) The recording medium of claim 36, wherein the recording medium is a DVD.

39. (Original) The recording medium of claim 36, wherein the object unit information includes object unit size information and object unit presentation time information associated with each of the object units.

40. (Original) The recording medium of claim 39, wherein the object unit size information of an object unit identifies a size of that object unit.

41. (Original) The recording medium of claim 39, wherein the object unit presentation time information of an object unit identifies a playing time of that object unit.

42. (Original) The recording medium of claim 36, wherein the access time information includes a plurality of index numbers each associated with one of the object units.

43. (Original) The recording medium of claim 42, wherein the access time information further includes location information for each of certain object units.

44. (Original) The recording medium of claim 43, wherein the access time information further includes time duration information identifying a time duration between two start presentation time positions associated with the data.

45. (Currently Amended) An apparatus for recording digital data streams to a recording medium, the apparatus comprising:

means for grouping data of a digital data stream into a plurality of object units;

means for recording the object units on the recording medium, wherein the object units are organized into an object;

means for creating and recording a managing information for managing the object, the managing information including an entry point map ~~information~~ associated with an entry point of the digital data stream and information indicating whether or not the entry point map ~~information~~ associated with the entry point exists; and

means for creating map information for accessing the data of the digital data stream, wherein the map information includes access time information and object unit information associated with the object units.

46. (Original) The apparatus of claim 45, wherein the object units contain video data.

47. (Previously Presented) The apparatus of claim 45, wherein the managing information and the map information are recorded on the recording medium.

48. (Original) The apparatus of claim 47, wherein the recording medium is a DVD.

49. (Original) The apparatus of claim 45, wherein the object unit information includes object unit size information and object unit presentation time information associated with each of the object units.

50. (Original) The apparatus of claim 49, wherein the object unit size information of an object unit identifies a size of that object unit.

51. (Original) The apparatus of claim 49, wherein the object unit presentation time information of an object unit identifies a playing time of that object unit.

52. (Original) The apparatus of claim 45, wherein the access time information includes a plurality of index numbers each associated with one of the object units.

53. (Original) The apparatus of claim 52, wherein the access time information further includes location information for each of certain object units.

54. (Original) The apparatus of claim 53, wherein the access time information further includes time duration information identifying a time duration between two start presentation time positions associated with the data.

55. (Currently Amended) A method for recording a digital data stream to a recording medium, the method comprising:

recording an object of a stream, wherein the object is a group of object units, and each object unit is a group of packet units; and

creating and recording a managing information for the object, the managing information including information indicating whether or not an entry point map associated with an entry point ~~exists~~ in the object exists.

56. (Currently Amended) The method of claim 55, wherein the managing information further includes the entry point map ~~information~~ related to the entry point in the object ~~and information indicating whether or not the entry information exists~~.

57. (New) The method of claim 1, wherein if the information indicates that the entry point map does not exist, then the managing information includes a time based map defined by a time period.